Abstract

Operators and plant computer programs used to operate a complex process facility are aided in managing the process during transitions by a computer-based apparatus. The apparatus incorporates a knowledge base and methods for identifying modes and transitions during plant operation. At frequent intervals, measured values of the process variables are used to evaluate the current state of the process and its sections and subsections. The identified state of the plant is broadcast to different clients of this application. The apparatus monitors the plant for the normal execution of the transition. It also identifies the current task being performed in the process and sends this message to different sections of the plant. The results are displayed on a visual display device and can also be sent to other plant computer programs for guidance during the transition. A permanent chronological record of the sequence of events - modes and transitions - of the plant and sections and subsections including the pertinent plant

conditions and information is also generated by the apparatus for subsequent review and analysis. Methods for generating the knowledge base are also presented.